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Rethinking the Buy vs. Lease Decision

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14. ABSTRACT

In years past, the DoD has considered leasing major equipment from defense industry firms in order to acquire needed capability quickly and without the upfront expense. A number of studies have analyzed the costs and benefits of leasing (as opposed to purchasing) specific military equipment (e.g., Engin, 1989; Lebo & Scott, 2009). Some of these lease arrangements, such as the Navy???s long-term lease of tanker ships between 1983 and 2011, proved to be cost effective, or at least cost neutral, depending on the evaluation criteria used (Haslam, Koenig, & Mitchell, 2004; Miguel, Shank, & Summers 2005). Nevertheless, the ensuing congressional backlash led to the passage of new regulations in the early 1980s, including the submission of a detailed justification for lease versus purchase, which has effectively restricted the use of long-term leases. Support for leasing major equipment continues to decline. Recently, for example, the Coast Guard considered leasing polar icebreakers to supplement its two-ship fleet, one of which has exceeded its 30-year service life (GAO, 2011). In the end, Stephen L. Caldwell Director of Homeland Security and Justice, noted that the lack of existing vessels capable of meeting Coast Guard requirements limited the availability of leasing options. He also stated that ???an initial cost-benefit analysis of one type of available leasing option ??? suggested that it may ultimately be more costly to the Coast Guard over the 30-year icebreaker lifespan??? (O???Rourke, 2012, p. 30). Note, however, that there are good reasons to lease (rather than purchase) equipment in certain circumstances, even if leasing is not the most cost-efficient acquisition strategy. For instance, when funds are unavailable to purchase mission-critical equipment leasing enables immediate access to assets and spreads outlays over the life of the lease. Leasing may also be appropriate in instances where the need for an asset is short-term or indeterminate. Finally, in exigent circumstances, leasing commercial equipment to bolster military capability may be preferable to initiating the often-lengthy acquisition process for developing military systems. However, newer legislation, passed in 2008, restricts shortterm leasing. 10 U.S.C. 2401(as amended in 2008), authorizes the military departments to lease equipment (e.g., vessels, aircraft, or combat vehicles) for a period greater than two years, but less than five years, only if a cost analysis (that meets OMB Circular A-94 criteria), determines that a contract to lease is the more cost-effective option. Of course, it is essential that the DoD continue to seek more cost effective weapons acquisition strategies. Leasing continues to draw critics, in part, because past lease-vs-buy analyses have relied on, what are perhaps, dubious assumptions. For example, past

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Panel 11. Changing Contours of the Defense Industrial Base

Thursday, May 15, 2014	
9:30 a.m. – 11:00 a.m.	**Chair: Jeff Ronka,** Managing Partner, Renaissance Strategic Advisors ***Quarrelsome Committees in U.S. Defense Acquisition: The KC-X Case*** Raymond Franck, USAF Academy Bernard Udis, University of Colorado Boulder ***Rethinking the Buy vs. Lease Decision*** Jacques Gansler, University of Maryland William Lucyshyn, University of Maryland John Rigilano, University of Maryland ***The Impact of Fiscal Austerity, Macroeconomic Forces, and Shifting Defense Priorities on the Global Defense Industrial Base*** Nayantara Hensel, Federal Housing Finance Agency

Rethinking the Buy vs. Lease Decision[1]

Jacques S. Gansler—former under secretary of defense for acquisition, technology, and logistics, is a professor and holds the Roger C. Lipitz Chair in Public Policy and Private Enterprise in the School of Public Policy, University of Maryland; he is also the director of the Center for Public Policy and Private Enterprise. As the third-ranking civilian at the Pentagon from 1997–2001, Dr. Gansler was responsible for all research and development, acquisition reform, logistics, advance technology, environmental security, defense industry, and numerous other security programs. Before joining the Clinton Administration, Dr. Gansler held a variety of positions in government and the private sector, including deputy assistant secretary of defense (material acquisition), assistant director of defense research and engineering (electronics), senior vice president at TASC, vice president of ITT, and engineering and management positions with Singer and Raytheon Corporations.

Throughout his career, Dr. Gansler has written, published, testified, and taught on subjects related to his work. He is the author of five books and over 100 articles. His most recent book is Democracy's Arsenal: Creating a 21st Century Defense Industry (MIT Press, 2011).

In 2007, Dr. Gansler served as the chair of the Secretary of the Army's Commission on Contracting and Program Management for Army Expeditionary Forces. He is a member of the Defense Science Board and the Government Accountability Office Advisory Board. He is also a member of the National Academy of Engineering and a fellow of the National Academy of Public Administration. Additionally, he is the Glenn L. Martin Institute Fellow of Engineering at the A. James Clarke School of Engineering; an affiliate faculty member at the Robert H. Smith School of Business; and a senior fellow at the James MacGregor Burns Academy of Leadership (all at the University of Maryland). From 2003–2004, Dr. Gansler served as interim dean of the School of Public Policy at the University of Maryland, and from 2004–2006, he served as vice president for research at the University of Maryland. [jgansler@umd.edu]

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Abstract

In years past, the DoD has considered leasing major equipment from defense industry firms in order to acquire needed capability quickly and without the upfront expense. A number of studies have analyzed the costs and benefits of leasing (as opposed to purchasing) specific military equipment (e.g., Engin, 1989; Lebo & Scott, 2009). Some of these lease arrangements, such as the Navy's long-term lease of tanker ships between

[1] This is a summary of the full report, which will be available in June 2014.

1983 and 2011, proved to be cost effective, or at least cost neutral, depending on the evaluation criteria used (Haslam, Koenig, & Mitchell, 2004; Miguel, Shank, & Summers, 2005). Nevertheless, the ensuing congressional backlash led to the passage of new regulations in the early 1980s, including the submission of a detailed justification for lease versus purchase, which has effectively restricted the use of long-term leases.

Support for leasing major equipment continues to decline. Recently, for example, the Coast Guard considered leasing polar icebreakers to supplement its two-ship fleet, one of which has exceeded its 30-year service life (GAO, 2011). In the end, Stephen L. Caldwell, Director of Homeland Security and Justice, noted that the lack of existing vessels capable of meeting Coast Guard requirements limited the availability of leasing options. He also stated that "an initial cost-benefit analysis of one type of available leasing option … suggested that it may ultimately be more costly to the Coast Guard over the 30-year icebreaker lifespan" (O'Rourke, 2012, p. 30).

Note, however, that there are good reasons to lease (rather than purchase) equipment in certain circumstances, even if leasing is not the most cost-efficient acquisition strategy. For instance, when funds are unavailable to purchase mission-critical equipment, leasing enables immediate access to assets and spreads outlays over the life of the lease. Leasing may also be appropriate in instances where the need for an asset is short-term or indeterminate. Finally, in exigent circumstances, leasing commercial equipment to bolster military capability may be preferable to initiating the often-lengthy acquisition process for developing military systems. However, newer legislation, passed in 2008, restricts short-term leasing. 10 U.S.C. 2401(as amended in 2008), authorizes the military departments to lease equipment (e.g., vessels, aircraft, or combat vehicles) for a period greater than two years, but less than five years, only if a cost analysis (that meets OMB Circular A-94 criteria), determines that a contract to lease is the more cost-effective option.

Of course, it is essential that the DoD continue to seek more cost effective weapons acquisition strategies. Leasing continues to draw critics, in part, because past lease-vs-buy analyses have relied on, what are perhaps, dubious assumptions. For example, past analyses have taken into account anticipated tax revenues to the Treasury from lease payments (received by the lessor) in order to offset the cost of the lease. Yet on the purchase side, tax revenues were not considered. In other instances, the present value of the tax payments by the lessor on the interest component of lease payments have been considered revenue to the government, reducing the cost of the lease relative to the outright purchase of the equipment. However, the question must be asked: Would not these same investors have earned taxable interest by investing in other similar projects?

However, to throw the baby out with the bathwater would be a mistake. In light of declining budgets on one hand, and new and evolving security threats on the other, the DoD should keep all procurement options on the table. But, given the negative perceptions and uncertainty regarding cost-effectiveness, an innovative approach to leasing—one that allows the government to capture leasing's traditional benefits, mentioned above, while improving value to the taxpayer—must be pursued.

In 2001, Congress authorized the Air Force to lease one hundred KC-767 tankers from Boeing for six years starting in 2006 (GAO, 2003). However, this agreement was nullified amidst intense political backlash and allegations of improper dealings between Boeing and Air Force officials. Then, in 2011, after a series of missteps by Air force acquisition personnel, which resulted in a protest and canceled award, the Air Force finally contracted with Boeing to purchase the aircraft outright. However, the merits and drawbacks of the original proposal to lease the aircraft have yet to be fully examined.

The United Kingdom approved a similar plan to lease tankers via a private finance initiative, or PFI, in 1997, citing short-term affordability benefits. In 2008, after years of delay, the Ministry of Defence (MoD) signed a 27-year contract with AirTanker according to which the latter would provide the MoD with permanent access to nine aircraft—and up to 14 during times of crisis—as well as the necessary infrastructure, fuel, maintenance, ground services, and training through the year 2035. The agreement also includes the provision of 14 sponsored reserve[2] pilots and 48 qualified cabin crew. AirTanker will be able to earn extra revenue by using aircraft for commercial operations when not required by the RAF; additionally, European partners could purchase spare capacity from AirTanker. These innovative provisions effectively reduced the cost to the MoD lease.

Recently, the National Audit Office published a report criticizing the MoD's approach. According to the report, the key evaluation criterion, "value for money" was measured inappropriately, competition was limited, requirements never stabilized, and there was limited cost visibility (National Audit Office, 2010). Moreover, there was no sound evaluation of other procurement approaches. Note that none of these criticisms challenges the procurement strategy so much as the process by which the procurement decision was reached. The MoD has, for example, also had a successful 10 year relationship with the FASTTRAX consortium to provide heavy equipment transporters (HETs) using a 20 year lease ("Oshkosh," 2012). In any case, the DoD may wish to draw from the UK's approach and consider innovative leasing agreements that, for example, allow for the sale of spare capacity to U.S. allies.

In summary, there are benefits, risks, and rewards when leasing military equipment, including the potential cost savings associated with newer, innovative leasing agreements. In addition, the process by which these lease vs. buy decisions are reached is essential to a program's overall success. Based on the lessons learned from the DoD's and the UK's experience, as well as those from other entities (public and private), we develop a practical framework that formalizes—and simplifies—the buy vs. lease decision.

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[2] Sponsored Reserves are a category of reserve forces in the British Armed Forces, created by the Reserve Forces Act of 1996 in order to allow certain support tasks to be carried out by trained professionals. The concept allows for the contracting of services on condition that an agreed element of the contractor's workforce has a reserve liability. This element undertakes the contracted task as members of the armed forces.

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Critical Choices

Naval Post Graduate School
Acquisition Research Symposium

15 May 2014

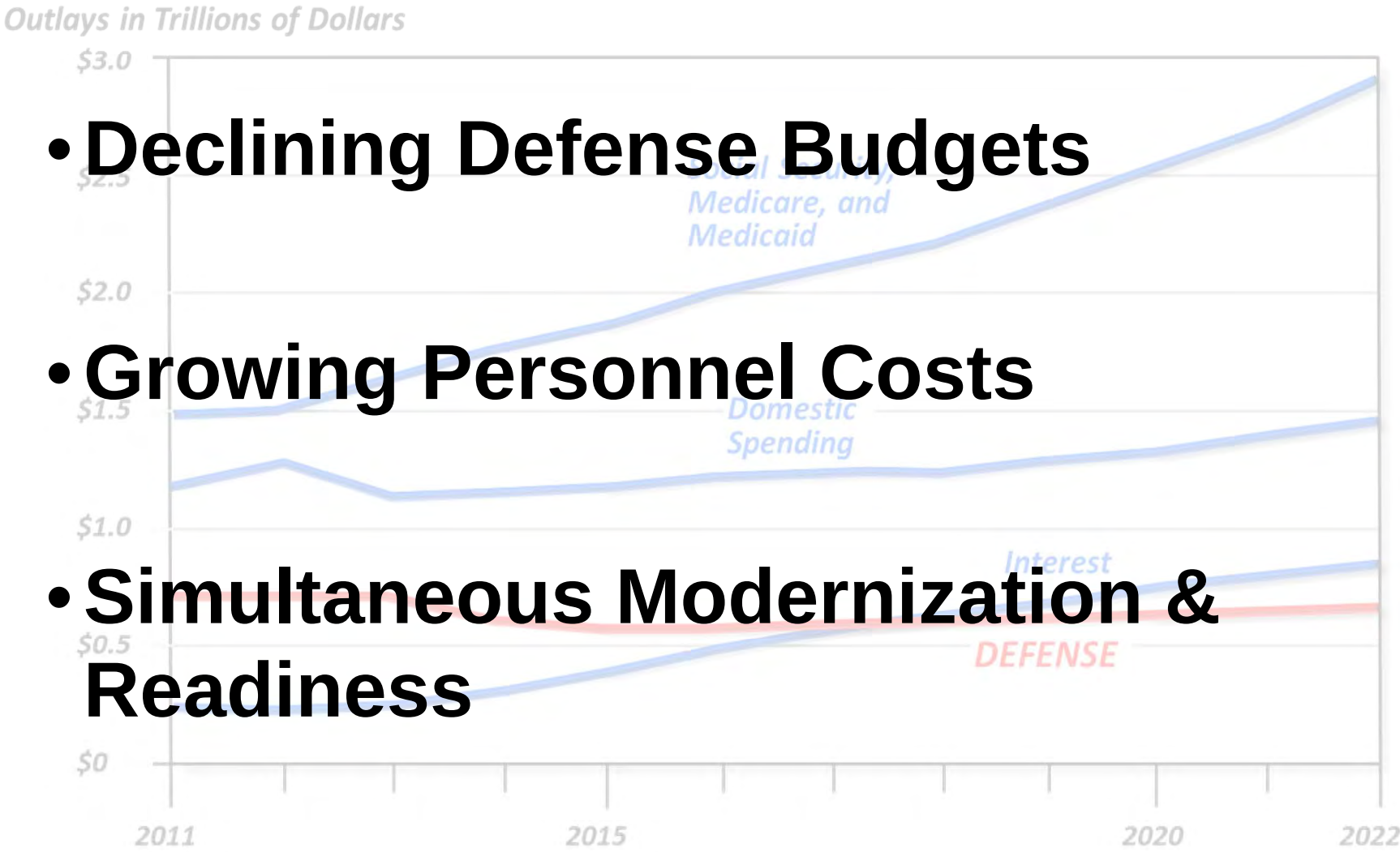
LOCKHEED MARTIN

Dr. Marilyn Gaska
Chief Engineer
Logistics & Sustainment
Corporate Engineering, Technology , and Operations

Agenda

- Baseline Conditions
- Manpower Considerations
- Purchasing Outcomes
- Public Private Partnerships

Baseline Conditions



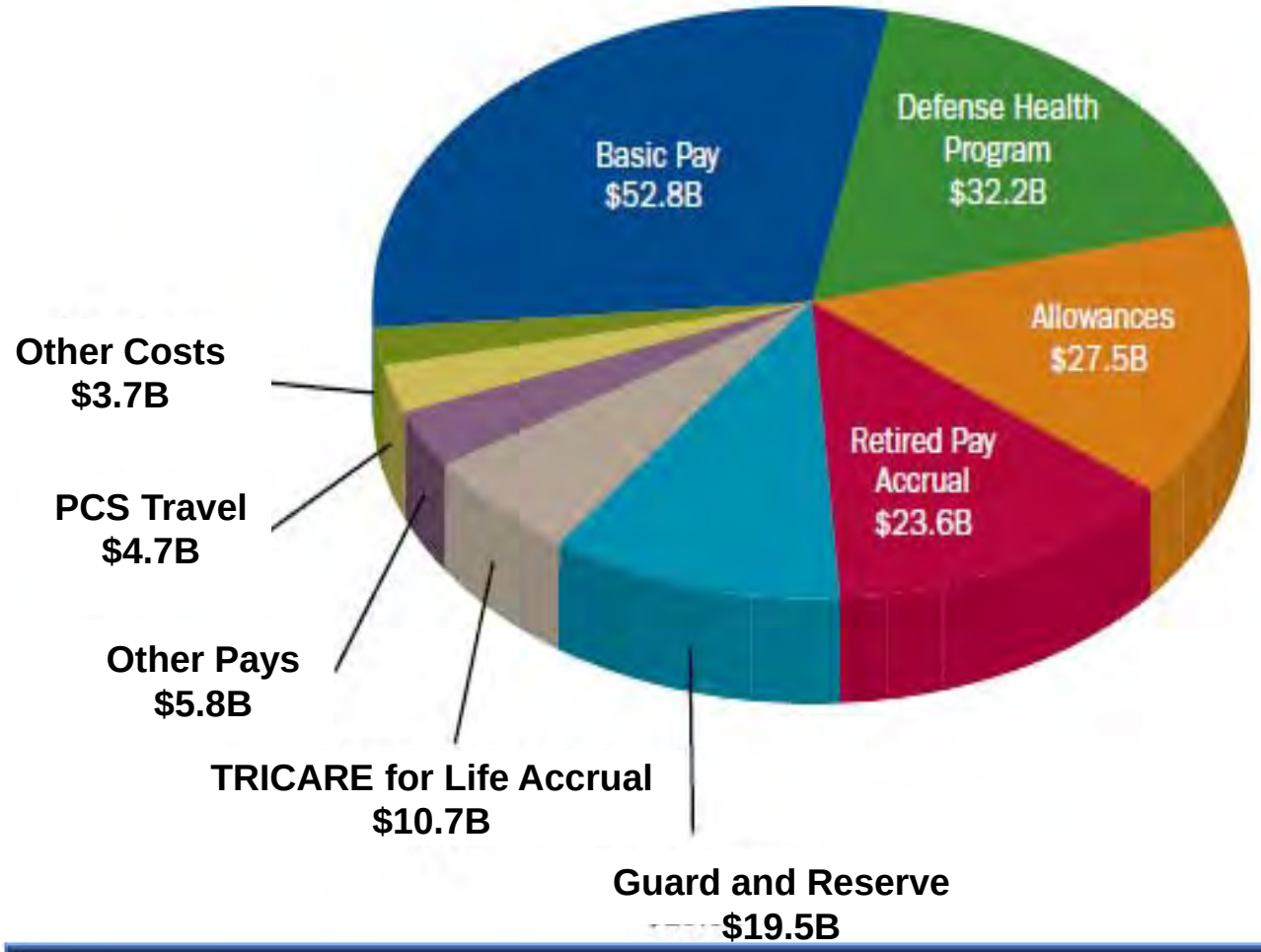
- **Declining Defense Budgets**
- **Growing Personnel Costs**
- **Simultaneous Modernization & Readiness**

Allied Experience

Transformed military structures to concentrate on core competencies

- **Migrate uniformed personnel to only combat / combat support functions**
- **Employ of public / private partnerships**
- **Foster commercial joint ventures**

US Force Structure Costs



US Military Personnel Cost = $180B/year

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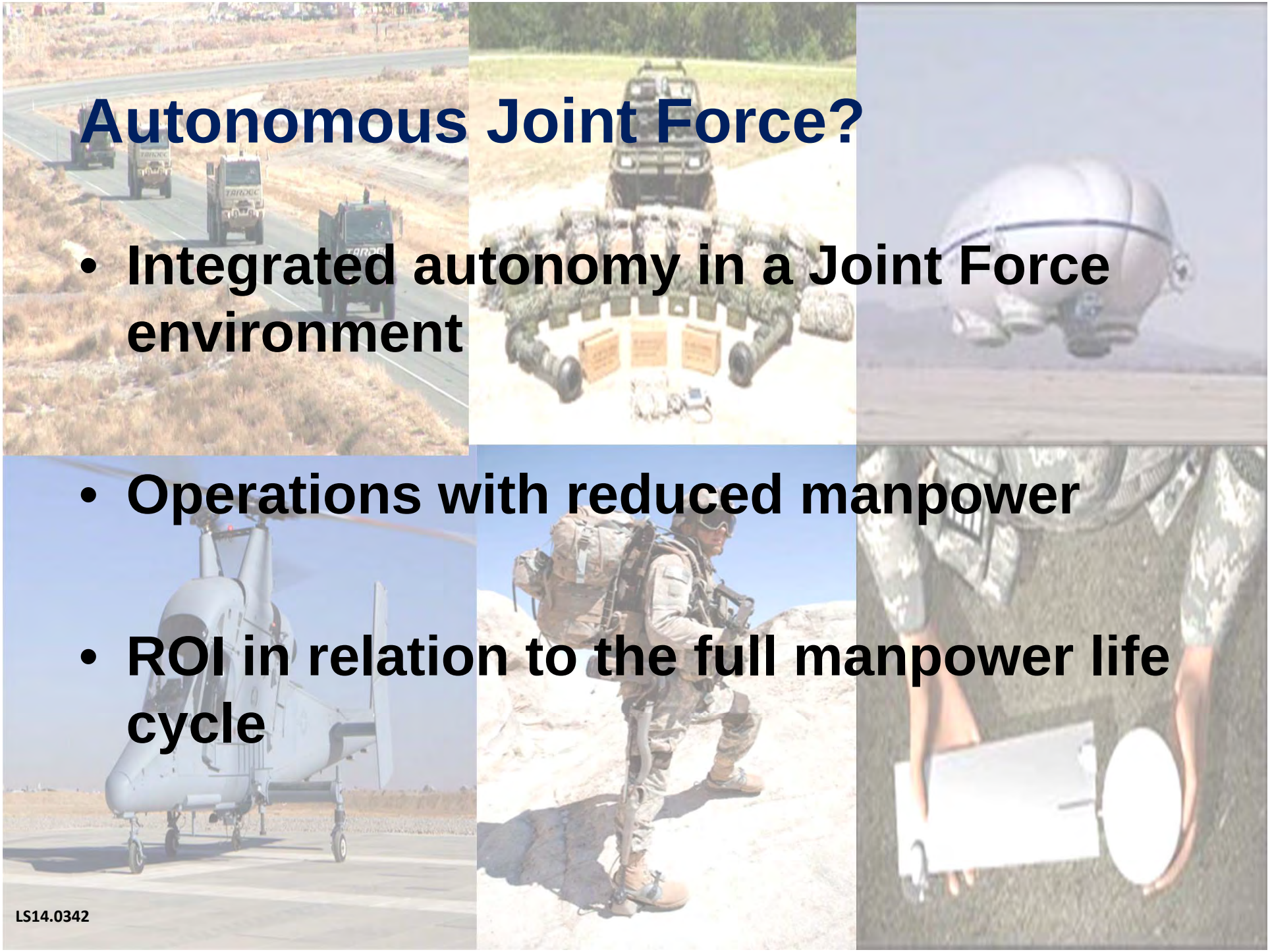
Autonomous Joint Force?

- Integrated autonomy in a Joint Force environment
- Operations with reduced manpower
- ROI in relation to the full manpower life cycle



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Focus on Combat Operations

Total US Active Duty and DoD Civilian Personnel					
	Enlisted	**Officer**	**Total (Military)**	**DoD Civilians**	**Total**
Combat Specialty Occupations	192,000	33,000	226,000	n/a	226,000
Other	1,019,000	215,000	1,234,000	784,000	2,018,000
Ratio—tail : tooth	**5:1**	**6:1**	**5:1**	**n/a**	**9:1**

Non-combat essential functions may be considered for private sector partnerships

- **Financial accounting/independent audits**
- **Logistics (supply chain and distribution)**
- **Data center operations**

As the U.S. military considers force reduction, it is imperative that the nation retain essential military capability

Public Private Partnerships


Singapore Basic Wings Course


F-22 – Ogden AFB


Kelly Aviation – T-56 Engine


H-60 Tip-to-Tail: (MHSCo)

Public Private Partnerships

- Base housing
- Energy generation
- Transportation
- Enhanced Use Lease

Can we capitalize on prior efforts?

Joint Ventures - AMMROC

- **Joint venture enterprise between Mubadala, Sikorsky, & Lockheed Martin**
- **Unifies all logistic and maintenance efforts into a single entity**
- **Coordinates all required OEM and third party contractors**
- **Combines all supply chain authority under one entity**

The Best of Government and the Best of Industry

Strategic Questions

- **Does the United States really want a technologically-enabled military?**
- **Are the DoD and military departments ready to re-look the public/private sector balance? (similar to our Allies)**
- **Can we continue to provide affordable readiness within the current regulatory environment?**